US010972911B2

(12) **United States Patent** (10) **Patent No.:** **US 10,972,911 B2**
Lerch et al. (45) **Date of Patent:** **Apr. 6, 2021**

(54) **LOCATION-BASED CREDENTIAL SELECTION FOR WIRELESS TRANSACTIONS**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 167 days.

(21) Appl. No.: **15/718,242**

(22) Filed: **Sep. 28, 2017**

(65) **Prior Publication Data**

US 2019/0098499 A1 Mar. 28, 2019

(51) **Int. Cl.**
G06F 7/04 (2006.01)
G06F 15/16 (2006.01)
(Continued)

(52) **U.S. Cl.**
CPC **H04W 12/06** (2013.01); **G01S 5/14** (2013.01); **G06Q 20/20** (2013.01); **G06Q 20/227** (2013.01);
(Continued)

(58) **Field of Classification Search**
CPC H04W 12/06; H04W 76/10; H04W 4/80; G01S 5/14; G06Q 20/20; G06Q 20/227;
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,252,543 B1   6/2001   Camp
7,413,113 B1   8/2008   Zhu
(Continued)

FOREIGN PATENT DOCUMENTS

EP   3001373 A1   3/2016
JP   01-206279 A   8/1989
(Continued)

OTHER PUBLICATIONS

Extended European Search Report directed to related European Patent Application No. EP 18 18 9036, dated Nov. 11, 2018; 10 pages.
(Continued)

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(57) **ABSTRACT**
The present disclosure includes an electronic device for selecting a credential based at least in part on location information. The electronic device can include a secure transaction subsystem and a processor. The secure transaction subsystem can be configured to store a plurality of credentials. The processor can be communicatively coupled to the secure transaction subsystem and configured to receive the location information from one or more radios. Further, the processor can be configured to determine that a distance between the electronic device and a terminal is less than a predetermined distance based on the location information. In response to determining the distance between the electronic device and the terminal is less than the predetermined distance, the processor can be configured to select the credential from the plurality of credentials based at least in part on the type of terminal.

20 Claims, 9 Drawing Sheets

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